

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech. I Year I Semester Regular & Supplementary Examinations December/January-2024/2025

ENGINEERING GRAPHICS
(Common to EEE, CSIT & CSE)

Time: 3 Hours

Max. Marks: 70

(Answer all the Questions 5 x 14 = 70 Marks)

UNIT-I

- 1 Construct an ellipse, with distance of the focus from the directrix as 50 mm and eccentricity as $\frac{2}{3}$. Also draw normal and tangent to the curve at a point 40 mm from the directrix. **CO1 L6 14M**

OR

- 2 Draw a parabola having a distance of 50 mm between the focus and directrix and identify normal and tangent to the parabola at a point 35 mm from the focus. **CO1 L6 14M**

UNIT-II

- 3 Draw the projections of a straight line AB of 70 mm long, in the following positions: **CO2 L1 14M**

- a) Inclined at 30° to VP, in HP and one end on VP
b) Inclined at 45° to HP, one end 20 mm above HP and parallel to and 30 mm in front of VP
Inclined at 60° to VP, one end 20 mm in front of VP and parallel to and 25 mm above HP.

OR

- 4 A line NS 80mm long has its end N 10mm above HP and 15mm In front of VP. The other end S is 65mm above HP and 50mm in front of VP. Draw the projections of the line and Find its true inclinations with HP & VP. **CO2 L3 14M**

UNIT-III

- 5 a Draw the projections of a cylinder of base 30mm diameter and axis 50mm long, when it is resting on H.P on one of its bases. **CO3 L6 7M**
b Draw the projections of a cone of base 30mm diameter and axis 50mm long, when it is resting on H.P on one of its bases. **CO3 L6 7M**

OR

- 6 Draw the projections of a hexagonal prism of base side 25mm and axis 60mm long, when it is resting on one of its corners of the base on H.P. The axis of the solid is inclined at 45° to H.P. **CO3 L6 14M**

UNIT-IV

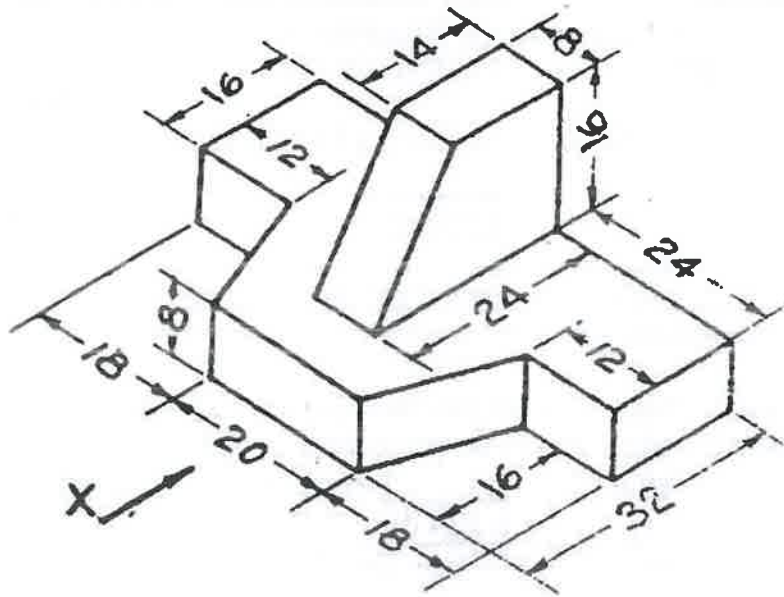
- 7 A pentagonal pyramid with edge of base 25 mm and axis 65 mm long, its base is resting on HP. It is cut by a section plane, inclined at 60° to HP and perpendicular to VP it bisects the axis. Draw the projections and obtain the true shape of the section. **CO4 L6 14M**

OR

- 8 A cone of 50 mm diameter and axis 70 mm long. Its base is on HP. It is cut by a sectional plane perpendicular to VP and inclined to HP at 45° from apex 32mm .Draw the projections of FV,S.TV, True shape. **CO4 L6 14M**

UNIT-V

- 9 Draw three views of the blocks shown pictorially in figure according to first angle projection CO6 L6 14M



OR

- 10 Draw the isometric view of a cone of base diameter 50mm and axis 60 mm. CO5 L1 14M
The cone has its base on
(a)HP (b)VP

